



Disease Detectives

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Communicable Disease Control UPDATE

MECKLENBURG COUNTY HEALTH DEPARTMENT
A Quarterly Publication

Important Changes to Enteric Exclusion Policy



CHILD CARE EXCLUSION

Salmonellosis — All children and staff must be excluded until asymptomatic.

Children who have *Salmonella* in their stools but do not have symptoms may return to child care after public health has evaluated the hand hygiene and diaper changing practices in the affected rooms within the child care facility and documents the technique as appropriate. **A release from the physician is not sufficient.**

In case of a disease outbreak (2 or more cases not related by household), children and staff will be excluded until asymptomatic and two negative stool cultures taken not less than 24 hours apart, and at least 48 hours after being off antibiotics are obtained. **A release from the physician is not sufficient.**

Shigellosis — All children and staff must be excluded from the center until two consecutively negative stools (taken not less than 24 hours apart and at least 48 hours after being off antibiotics) are obtained. The Communicable Disease Control nurse from the MCHD must release the child or worker to return to the child care center. **A release from the physician is not sufficient.**

FOODHANDLER EXCLUSION

Salmonellosis — All symptomatic individuals are excluded from food handling and may return to work when asymptomatic. If handwashing is questionable, Communicable Disease Control may require exclusion and additional stool testing. **A release from the physician is not sufficient.**

Shigellosis — All workers must be excluded from food handling until two consecutively negative stools (taken not less than 24 hours apart and at least 48 hours after being off antibiotics) are obtained. The Communicable Disease Control nurse from the MCHD must release the foodhandler to return to work. **A release from the physician is not sufficient.**

A note about reportable enterics:

The Communicable Disease Control nurse will implement any exclusion or return to work/child care. Please contact the Communicable Disease Control offices if you have any questions regarding reporting or testing of communicable disease in Mecklenburg County (see page 7).

For more information please visit the Communicable Disease Control web page at: www.meckhealth.org or contact Beth Young at 704.336.5076 or Elizabeth.Young@MecklenburgCountyNC.gov.

Did you know...

...that on October 26, 2011, a Health Advisory was sent to health care providers concerning the investigation of a cluster of *E. coli* O157 infections and hemolytic uremic syndrome (HUS) cases that have been identified among Wake County residents during the past two weeks. Investigations are ongoing to determine the source (or sources) of infection. The complete advisory can be found on the Mecklenburg County Health Provider page at www.meckhealth.org. By law, all suspected shiga toxin-producing *E. coli* infections and HUS cases must be reported within 24 hours to the local health department. All suspected and confirmed cases should be reported immediately. Do not wait for laboratory confirmation.

Multi- State Listeriosis Outbreak

Listeria monocytogenes found in the family *Listeriaceae* is a rod shaped, gram positive bacterium distributed worldwide and found in vegetation, soil, and animal intestines.

L. monocytogenes was recognized and given its clinical description in 1926 by Dr. E. G. D. Murray based on sudden death in laboratory rabbits. Dr. Murray named the responsible organism *Bacterium monocytogenes*. In 1940 Dr. Harvey Pirie changed the genus name to *Listeria monocytogenes* to honor Sir Joseph Lister, an English physician. Dr. Lister is credited with being “The Father of Modern Surgery” after beginning a crusade of cleanliness in hospitals during the 1860’s, an era known for nosocomial infections in surgery patients as well as high mortality of mothers who died of septicemia after giving birth. His practices of antisepsis were eventually recognized as the reason mortality rates fell dramatically and transfer of pathogenic organisms slowly came under greater control.

As of October 11, 2011 a total of 116 persons infected with the four outbreak-associated strains of *Listeria monocytogenes* have been reported to CDC from 25 states. All illnesses started on or after July 31, 2011. Twenty-three deaths have been reported.

On September 14, 2011, the FDA issued a press report to announce that Jensen Farms, a melon farm in Colorado, recalled its Rocky Ford-brand cantaloupes.

Contaminated equipment and pools of tainted water on the floor at the farm are likely sources of the organism found on the rough outer skin of fresh cantaloupes. Entry into the melon occurs when the tough skin is peeled away during food preparation. Since the melon is consumed raw, pasteurization does not occur to destroy the pathogen.

Animals can carry the bacterium without appearing ill and can con-

taminate foods of animal origin such as meats and dairy products. Fruits and vegetables can become contaminated from the soil or from manure used as a fertilizer. The bacterium has been found in a variety of raw foods, such as uncooked meats and vegetables as well as in processed foods that become contaminated after processing,

Listeriosis causes febrile illness that may progress to meningoen- cephalitis or septicemia in adults and especially newborns. Mothers may deliver stillborn infants after exposure to this organism even though they may be asymptomatic at the time of delivery. Spontaneous abortions have occurred in late pregnancy if infection is acquired and from nosocomial infections in case of onset of neonatal disease. *Listeria* results in case fatality rates of 20 to 30% in all ages. Humans at highest risk are neonates, the elderly, immunocompromised patients, pregnant women, and alcoholic or diabetic adults. Sudden onset meningoen- cephalitis accompanied by fever, chills, headache, vomiting and signs of meningeal irritation should warrant immediate medical intervention. Shock, delirium and coma usually follow. Mortality rates are higher for listeriosis than for other foodborne pathogens such as *Salmonella*.

A positive diagnosis is confirmed only after isolation of *L. monocytogenes* from blood, CSF, or amniotic fluid. Microscopic examination of CSF allows a presumptive diagnosis. Cultures in agar will reveal the rod shaped, gram positive organism. Incubation periods are generally longer than for other foodborne illnesses, ranging from 7 to 30 days after a single exposure. There is no evidence of acquired immunity even after long or acute infection.

Listeriosis can be avoided by following some general recommendations:

- Avoid raw (unpasteurized) milk or foods made from raw milk.
- Thoroughly cook raw food from animal sources, such as beef,

pork, or poultry.

- Wash fruit and raw vegetables before eating.
- Keep uncooked meats separate from vegetables and from cooked foods and ready-to-eat foods.
- Wash hands, knives, and cutting boards after handling uncooked foods.
- Untreated farm animal manure should never be used on vegetable crops.
- Farmers and veterinarians must use precautions when handling sick animals and aborted fetuses.

High-risk persons, such as pregnant women and persons with weakened immune systems should take more precautions:

- Avoid soft cheeses.
- Ready-to-eat foods such as hot dogs should be cooked until steaming hot before eating.
- Although the risk of listeriosis associated with food from deli counters is relatively low, pregnant women and immuno-suppressed people may choose to avoid these foods.

For more information, contact Freda Grant at 704.336.6436 or Freda.Grant@MecklenburgCountyNC.gov or Al Piercy at 704.336.6440 or Alford.Piercy@MecklenburgCountyNC.gov.

This periodical is written and distributed quarterly by the Communicable Disease Control Program of the Mecklenburg County Health Department for the purpose of updating the medical community in the activities of Communicable Disease Control. Program members include: Health Director—E. Wynn Mabry, MD; Medical Director—Stephen R. Keener, MD; Deputy Health Director—Bobby Cobb; Director, CD Control—Carmel Clements; Sr. Health Manager—Lorraine Houser; CD Control nurses—Freda Grant, Jane Hoffman, Penny Moore, Beth Quinn, Belinda Worsham; —Elizabeth Young (Childcare nurse), Earlene Campbell-Coleman (TB Outreach/Adult Day Health); Rabies/Zoonosis Control—Al Piercy; Health Supervisor—Carlos McCoy; DIS—Mary Ann Curtis, John Little, Michael Rogers, Jose’ Pena; Preparedness Coordinator—Bobby Kennedy; Office Assistants—Pamela Blount, Vivian Brown, Janet Contreras.

Lorraine Houser

Editor

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Flu Vaccine & Egg Allergy

The CDC released updated guidelines for the prevention and control of influenza on August 18, 2011. Included in the update were recommendations regarding persons with egg allergy. The following is a summary of the guidelines for persons with egg allergy:

Persons who have experienced only hives following exposure to egg should receive influenza vaccine with the following additional measures: because studies published to date involved use of trivalent inactivated influenza virus vaccine (TIV), use TIV rather than live attenuated trivalent influenza virus vaccine (LAIV); vaccine should be administered by a health-care provider who is familiar with the potential manifestations of egg allergy; vaccine recipients should be observed for at least 30 minutes for signs of a reaction following administration of each vaccine dose; and dividing and administering vaccine by a two-step approach and skin testing with vac-

cine are not necessary.

Persons who report having had reactions to egg involving angioedema, respiratory distress, lightheadedness, or recurrent emesis, or persons who required epinephrine or other emergency medical intervention, particularly those that occurred immediately or within minutes to hours after egg exposure are more likely to have a serious systemic or anaphylactic reaction upon re-exposure to egg proteins; before receipt of vaccine, such persons should be referred to a physician with expertise in the management of allergic conditions for further risk assessment.

All vaccines should be administered in settings in which personnel and equipment for rapid recognition and treatment of anaphylaxis are available.

Some persons who report allergy to egg might not be egg allergic. Those who are able to eat lightly

cooked eggs (e.g. scrambled eggs) without reaction are unlikely to be allergic. Conversely, egg-allergic persons might tolerate egg in baked products (e.g. bread or cake). Tolerance to egg-containing foods does not exclude the possibility of egg allergy. Egg allergy can be confirmed by consistent medical history of adverse reactions to eggs and egg-containing foods, plus skin and/or blood testing for immunoglobulin E antibodies to egg proteins.

A previous severe allergic reaction to influenza vaccine, regardless of the component suspected to be responsible for the reaction, is a contraindication to the receipt of the influenza vaccine.

For more information, go to the CDC's [MMWR website](http://www.cdc.gov/mmwr) or contact Jane Hoffman at 704.336.5490 or Jane.Hoffman@MecklenburgCountyNC.gov.

2011 CDC Recommended Influenza Antiviral Treatment

Antiviral agent	Activity against	Use	FDA approved for	Not recommended for use in	Adverse Events
Oseltamivir (Tamiflu®)	Influenza A and B	Treatment	1 yr and older	none	Adverse events: nausea, vomiting. Transient neuropsychiatric events (self injury or delirium) mainly reported among Japanese adolescents and adults.
		Chemo-prophylaxis	1 yr and older	none	
Zanamivir (Relenza®)	Influenza A and B	Treatment	7 yrs and older	people with underlying respiratory disease (e.g., asthma, COPD)	Allergic reactions: oropharyngeal or facial edema. Adverse events: diarrhea, nausea, sinusitis, nasal signs and symptoms, bronchitis, cough, headache, dizziness, and ear, nose and throat infections.
		Chemo-prophylaxis	5 yrs and older	people with underlying respiratory disease (e.g., asthma, COPD)	

Did you know...

...the 2011-12 trivalent influenza vaccine for the United States will contain A/California/7/2009-like H1N1, A/Perth/16/2009-like (H3N2), and B/Brisbane/60/2008-like viruses? The formulation will be the same as 2010-2011 influenza vaccine.

Traveler's Diarrhea

Travelers' diarrhea (TD) is the most common illness related to travel. Symptoms vary from mild cramps and diarrhea to severe abdominal pain, fever, vomiting and bloody diarrhea. Bacterial pathogens are thought to cause 80% to 90% of travelers' diarrhea (enterotoxigenic *Escherichia coli*, *Campylobacter jejuni*, *Shigella* species, *Salmonella* species, other *E. coli* species, *Plesiomonas* species, and *Aeromonas* species).

Intestinal viruses account for 5%-8% of the illnesses. Protozoal pathogens account for approximately 10% of illnesses in long-term travelers (*Giardia*, *Entamoeba histolytica*, *Cryptosporidium*, *Cyclospora*, *Dientamoeba fragilis*).

Destination is the most important determinant of risk for TD. Low risk countries include the United States, Canada, Australia, New Zealand, Japan and countries in Northern and

Western Europe. Intermediate-risk countries include those in Eastern Europe, South Africa, and some of the Caribbean islands. High risk areas include most of Asia, the Middle East, Africa, Mexico, and Central and South America.

Poor hygiene practices in restaurants are most likely the cause of most TD. Foods that are freshly cooked and served piping hot are safer than foods on a buffet.

Risky foods include reconstituted fruit juices, ice, milk, undercooked meat/seafood, and raw fruits/vegetables. Beverages made with boiled water, carbonated beverages, beverages treated with iodine/chlorine and pasteurized drinks are generally safe to drink.

Consumption of food and beverages obtained from street vendors has been associated with an increased

risk of TD.

The CDC does not recommend antimicrobial drugs to prevent TD. Travelers who develop three or more loose stools in an 8-hour period—especially if associated with nausea, vomiting, abdominal cramps, fever, or blood in stools—may benefit from antimicrobial therapy. Currently fluoroquinolones are the drugs of choice. Commonly prescribed regimens are 500mg of ciprofloxacin twice a day or 400mg of norfloxacin twice a day for 3-5 days. Trimethoprim-sulfamethoxazole and doxycycline are no longer recommended because of the high level of resistance to these agents. Bismuth subsalicylate also may be used as a treatment. If diarrhea persists despite therapy, traveler's should be evaluated by a doctor and treated for possible parasitic infection. For additional information visit: [CDC Traveler's Diarrhea](http://www.cdc.gov/travel/diarrhea) webpage.

What is

"Azithromycin 1 g po in a single dose or Doxycycline 100 mg po Bid x 7 days"?

- A. The recommended treatment for chlamydia.
- B. The recommended treatment for what ails you.
- C. The latest hit by Scotty McCreery.
- D. Doesn't matter. I'm prescribing Motrin and Macrodantin.

Congratulations! You guessed the right answer. Your prize is a patient appropriately treated for chlamydia.

From January 1, 2011–September 30, 2011, the Health Department reported 5,477 cases of chlamydia. **The state is now requiring that treatment for chlamydia and all STDs be entered into their electronic data system, NCEDSS (North Carolina Electronic Disease Surveillance System).** We want to thank the providers who patiently accepted our phone calls and provided us with the information we needed. We especially want to thank those providers

who routinely and thoroughly complete the Communicable Disease Report Form and send it to us in a timely manner (A revised Report Form can be found on page 6 of this newsletter). Laboratories and physicians are required to report communicable diseases to the local health department. Labs do not collect all of the information necessary to report. That is why it is extremely important for physicians to report, too. With complete information, we will not have to call your office during your very busy day to request this information.

But back to chlamydia. CDC recommends yearly chlamydia testing for all sexually active women age 25 or younger, older women with risk factors for chlamydial infections (those who have a new sex partner or multiple sex partners), and all pregnant women. Positive cases should be retested in three months after treat-

ment. All sex partners should be evaluated, tested and treated. Although chlamydia can occur silently, please increase your suspicion of disease when a young patient presents with any genital symptoms such as an unusual sore, discharge with odor, burning during urination, or bleeding between menstrual cycles. Other symptoms can include low back pain, fever, abdominal pain and nausea.

For copies of STD treatment guidelines or Report Forms or to report an STD, please call 704.432.1742. Reports may be faxed to 704.336.6200. For more information, contact Lorraine Houser at 704.336.6438 or Lorraine.Houser@MecklenburgCountyNC.gov.

P.S. We all know the correct answer is "A", right?



2010 CHLAMYDIA FACT SHEET

A Profile of Mecklenburg County Reported Cases

Mecklenburg County Reported CHLAMYDIA Cases By Year of Report

By Age, Race and Gender

YEAR (Total cases)	2006 (n=2,836)		2007 (n=1,740)		2008 (n= 4,221)		2009 (n= 5,840)		2010 (n= 4,537)	
Characteristics	cases	%	cases	%	cases	%	cases	%	cases	%
Age										
0 - 12 yrs	7	<1%	0	0%	42	1%	***	<1%	7	<1%
13 – 19 yrs	1093	39%	656	38%	1393	33%	1892	32%	1,472	32%
20 – 29 yrs	1426	50%	873	50%	2239	53%	3122	53%	2,466	54%
30 – 39 yrs	260	9%	168	10%	412	10%	635	11%	468	10%
40 – 49 yrs	40	1%	35	2%	93	2%	129	2%	101	2%
50 and over	10	<1%	8	0%	25	<1%	32	1%	21	<1%
Missing/Unknown	0	0%	0	0%	17	<1%	29	1%	2	<1%
Race										
White*	459	16%	246	14%	633	15%	606	10%	494	11%
Black*	2010	71%	1263	73%	2873	68%	3,771	65%	2,659	59%
Am Indian/Alaskan*	***	<1%	0	0%	4	1%	19	0%	9	<1%
Asian/Pacific Island*	46	2%	24	1%	42	1%	54	1%	43	1%
Hispanic	275	10%	175	10%	313	7%	391	7%	292	6%
Other	44	2%	32	2%	210	5%	402	7%	24	<1%
Missing/Unknown (*Non-Hispanic)	0	0%	0	0%	146	3%	597	10%	1016	22%
Gender										
Male	658	23%	423	24%	1182	28%	1,663	28%	1,251	28%
Female	2178	77%	1317	76%	3039	72%	4,177	72%	3,280	72%
Missing/Unknown	0	0%	0	0%	0	0%	0	0%	6	<1%

North Carolina Department of Health and Human Services
Division of Public Health • Epidemiology Section
Communicable Disease Branch • Immunization Branch (WCH Section)



ATTENTION PHYSICIANS/HOSPITALS:
Mail/fax this form to your local health department.

Mecklenburg County Health Department
700 North Tryon St., Ste. 214
Charlotte, NC 28202

Sexually Transmitted Diseases, HIV & AIDS
(Call) 704.432.1742 or (Fax) 704.336.6200

All Other Reportable Communicable Diseases
(Call) 704.336.2817 or (Fax) 704.353.1202

Confidential Communicable Disease Report—Part 1

NC DISEASE CODE
(see reverse side for code)

DATE OF SYMPTOM ONSET

Patient's First Name Middle Last Suffix Maiden/Other Alias

Birthdate (mm/dd/yyyy) Sex ☐ M ☐ F ☐ Trans. Parent or Guardian (of minors) Patient Identifier
SSN

Patient's Street Address City State ZIP County Phone

Age Age Type Race (check all that apply): Ethnic Origin Initial Source of Report to Public Health:
☐ Years ☐ White ☐ Asian ☐ Hospital
☐ Months ☐ Black/African American ☐ Other ☐ Hispanic ☐ Private clinic/practice
☐ Weeks ☐ American Indian/Alaska Native ☐ Unknown ☐ Non-Hispanic ☐ Health Department
☐ Days ☐ Native Hawaiian or Pacific Islander ☐ Correctional facility

Was patient hospitalized for this disease? (>24 hours) ☐ Yes ☐ No Did patient die from this disease? ☐ Yes ☐ No Is the patient pregnant? ☐ Yes ☐ No
☐ Laboratory
☐ Other

Patient is associated with (check all that apply):
☐ Child Care (child, household contact, or worker in child care)
☐ School (student or worker)
☐ College/University (student or worker)
☐ Food Service (food worker)
☐ Health Care (health care worker)
☐ Correctional Facility (inmate or worker)
☐ Long Term Care Facility (resident or worker)
☐ Military (active military, dependent, or recent retiree)
☐ Travel (outside continental United States in last 30 days)

Where was disease/condition most likely acquired?
☐ In patient's county of residence
☐ Outside county, but within NC - County: _____
☐ Out of state - State/Territory: _____
☐ Out of USA - Country: _____
☐ Unknown

Local Health Department Use Only
Was this disease part of a recognized outbreak? ☐ Yes ☐ No
Outbreak setting:
☐ Restaurant/Retail (name): _____
☐ Household (index case): _____
☐ Child Care (name): _____
☐ Other (specify): _____
☐ Community (index case): _____

Local Health Department Use Only
Communicable Disease Nurse or Designee Reporting to DPH:
Name: _____
Phone: (_____) _____-_____
Date sent to DPH: _____
Local Health Director's Signature or Stamp Approving Report

CLINICAL INFORMATION

For STDs: Enter Treatment/Symptoms

DIAGNOSTIC TESTING

LABORATORY TESTING:

Collection Date	Result Date	Type of Test	Specimen Source	Results (include serogroup/type)	Reference Range	Lab Name—City/State
Attach Lab Report						

Reporting Communicable Diseases – Mecklenburg County

To request N.C. Communicable Disease Report Forms, telephone 704.336.2817

Mark all correspondence "CONFIDENTIAL"

Tuberculosis:

TB Clinic	704.432.2490
Mecklenburg County Health Department	FAX 704.432.2493
2845 Beatties Ford Road	
Charlotte, NC 28216	

Sexually Transmitted Diseases, HIV, & AIDS:

HIV/STD Surveillance	704.432.1742
Mecklenburg County Health Department	FAX 704.336.6200
700 N. Tryon Street, Suite 214	
Charlotte, NC 28202	

All Other Reportable Communicable Diseases including Viral Hepatitis A, B & C:

Report to any of the following nurses:

Freda Grant, RN	704.336.6436
Jane Hoffman, RN,	704.336.5490
Elizabeth Quinn, RN	704.336.5398
Belinda Worsham, RN	704.336.5498
Penny Moore, RN	704.353.1270
Communicable Disease Control	FAX 704.353.1202
Mecklenburg County Health Department	
700 N. Tryon Street, Suite 271	
Charlotte, NC 28202	

Animal Bite Consultation / Zoonoses / Rabies Prevention:

Al Piercy, RS	704.336.6440
Communicable Disease Control	FAX 704.432.6708
Mecklenburg County Health Department	
618 N. College St.	
Charlotte, NC 28202	
or State Veterinarian, Carl Williams, DVM	919.707.5900
State after hours	919.733.3419

Child Care Nurse Consultant:

Elizabeth Young, RN	704.336.5076
Communicable Disease Control	FAX 704.353.1202
Mecklenburg County Health Department	
700 N. Tryon Street, Suite 271	
Charlotte, NC 28202	

Suspected Food borne Outbreaks / Restaurant, Lodging, Pool and Institutional Sanitation:

Food & Facilities Sanitation	(Mon-Fri)	704.336.5100
Mecklenburg County Health Department	(evenings; Sat/Sun)	704.432.1054
700 N. Tryon Street, Suite 208	(pager evenings; Sat/Sun)	704.580.0666
Charlotte, NC 28202	FAX	704.336.5306

Mecklenburg County Health Department